

A

B

C

D

E

F

A

B

C

D

E

F

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot
one sixteenth inch = one foot

GENERAL NOTES

- THE DRAWINGS SHOW THE GENERAL ARRANGEMENT AND LOCATION OF EQUIPMENT, DUCTWORK, PIPING, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE MECHANICAL INSTALLATION W/ THE STRUCTURE AND OTHER TRADES AND SHALL PROVIDE ADDITIONAL OFFSETS AND FITTINGS AS NECESSARY.
- COORDINATE WORK WITH AUTHORITY HAVING JURISDICTION AND OBTAIN ALL PERMITS AND INSPECTIONS.
- THE HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS SHALL COMPLY WITH THE MOST RECENT INTERNATIONAL MECHANICAL CODE, NFPA 90A, AND LOCAL CODE OFFICIAL REQUIREMENTS. IN THE EVENT OF A CONFLICT BETWEEN CODES, THE MOST STRINGENT SHALL ALWAYS GOVERN.
- DUCT DIMENSIONS ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.
- THE CONTRACTOR SHALL CHECK AND VERIFY ALL CLEARANCES PRIOR TO FABRICATION OR INSTALLATION OF EQUIPMENT, DUCTWORK, AND PIPING SYSTEMS. WHERE CONDITIONS REQUIRE A CHANGE IN DUCT OR PIPE ROUTING, NOTIFY THE CONTRACTING OFFICER FOR AN ACCEPTABLE ALTERNATIVE METHOD. AVOID ROUTING DUCTWORK DIRECTLY OVER LIGHT FIXTURES, DIFFUSERS, AND OTHER CEILING MTD. DEVICES. LOCATE ALL MECHANICAL EQUIPMENT SO THAT FILTERS AND COMPONENTS REQUIRING ACCESS (SERVICE AND MAINTENANCE) ARE FULLY ACCESSIBLE.
- PROVIDE CURVED RADIUS ELBOWS SUPPLY & RETURN FITTING FOR ALL HVAC UNITS. PROVIDE TURNING VANES IN ALL 90 DEGREE ELBOWS IN ALL RECTANGULAR SUPPLY/RETURN/EXHAUST DUCT SYSTEMS. ANY OFFSETS REQUIRED IN DUCT SYSTEMS SHALL BE INSTALLED PER SMACNA STANDARDS. SHARP ANGLED TRANSITIONS OR OFFSETS 'WILL NOT BE ALLOWED'. PROVIDE DUCT ACCESS DOORS AT LOCATIONS SPECIFIED.
- INSTALL ALL DUCT MOUNTED DEVICES (DAMPERS, ACCESS DOORS, ETC.) AND PIPING SPECIALTIES IN EASILY ACCESSIBLE LOCATIONS. ADVISE THE CONTRACTING OFFICER IN ADVANCE OF INSTALLATION IF ACCESS WILL BE HINDERED SO AN ALTERNATE LOCATION CAN BE SELECTED.
- ALL DUCT TAKE-OFFS SHALL BE INSTALLED AS SHOWN BY DETAILS ON THE PLANS WITH A MANUAL BALANCE DAMPER AT EVERY TAKE-OFF. WHERE DUCT RUN-OUT SIZE IS NOT SHOWN PROVIDE DUCT SAME SIZE AS GRILLE NECK SIZE. PRE-INSULATED FLEXIBLE DUCT MAY BE USED FOR FINAL CONNECTION TO SUPPLY/RETURN GRILLES (MAX. LENGTH 6')
- ALL ROTATING MECHANICAL EQUIPMENT SHALL BE PROVIDED WITH VIBRATION ISOLATION. PROVIDE FLEXIBLE NEOPRENE DUCT CONNECTORS BETWEEN DUCTWORK AND ISOLATED MECHANICAL EQUIPMENT.
- THE CONTRACTOR SHALL FIRESTOP ALL PENETRATIONS OF FIRE RATED WALLS/FLOORS/CEILINGS BY DUCTWORK PIPING, ETC., WITH U.L. LISTED FIRE STOPPING MATERIAL TO MAINTAIN FIRE RATING OF THE BARRIER.
- SEISMIC PROTECTION OF EQUIPMENT, DUCTWORK, PIPING AND UTILITIES SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16 OF THE 2012 EDITION OF THE INTERNATIONAL BUILDING CODE. ALL SEISMIC RESTRAINT AND BRACING SHALL BE SUBSTANTIATED BY MANUFACTURER'S SUBMITTALS PER THE SPECIFICATIONS.
- BALANCE ALL AIR DISTRIBUTION DEVICES, EXHAUST FANS, AND OUTSIDE AIR QUANTITIES AS SCHEDULED OR SHOWN ON THE DRAWINGS. PROVIDE MARKERS AT ALL DAMPER LOCATIONS SHOWING FULL OPEN/CLOSED POSITIONS AND DAMPER SETTING FOR REQUIRED AIRFLOW. PROVIDE FINAL TEST AND BALANCE REPORT ALONG W/ SCHEMATIC DRAWINGS SHOWING DIFFUSER LOCATION W/ DESIGN AND ACTUAL CFM. THE DIFFUSER TAGS ON THE DRAWINGS SHALL CORRESPOND TO THE DIFFUSER TAGS ON THE REPORT. THIS REPORT SHALL BE SUBMITTED BEFORE THE FINAL INSPECTION IS PERFORMED. SEE THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ALL PENETRATIONS THROUGH RATED FLOOR/CEILING ASSEMBLIES AND THROUGH FIRE RATED WALL AND SMOKE BARRIER ASSEMBLIES - THOSE CREATED BY REMOVAL OF DEMOLISHED ITEMS UNDER THIS CONTRACT AND THOSE DISCOVERED DURING CONSTRUCTION UNDER THIS CONTRACT AS A RESULT OF PREVIOUS WORK AND THOSE CREATED BY NEW WORK UNDER THIS CONTRACT - MUST BE SEALED AS PART OF THIS CONTRACT. ALL RATED SEPARATIONS MUST MEET CURRENT CODE REQUIREMENTS.
- ALL CONTAMINATED DUCTS AND FILTERS FOR PATIENT ISOLATION ROOMS SHALL BE LABEL AS "BIOHAZARD" IN ACCORDANCE WITH THE VA STANDARDS AND SPECIFICATIONS.
- SUPPLY AIR DUCTWORK UPSTREAM OF AIR TERMINAL TO BE SINGLE-WALLED MEDIUM PRESSURE ROUND OR FLAT OVAL. PROVIDE SMACNA STATIC PRESSURE CLASS AS REQUIRED FOR SCHEDULE EXTERNAL STATIC PRESSURE, SEAL CLASS A, INTERNALLY INSULATED, DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
- SUPPLY AIR DUCTWORK DOWNSTREAM OF AIR TERMINAL UNITS (EXCEPT TAKEOFFS TO SUPPLY AIR DIFFUSERS) TO BE SINGLE WALL LOW PRESSURE RECTANGULAR, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS A, EXTERNALLY INSULATED WITH 2" THICK FIBERGLASS DUCT WRAP. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
- RETURN AIR DUCTWORK TO BE SINGLE WALL LOW PRESSURE RECTANGULAR, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS A, EXTERNALLY INSULATED WITH 2" THICK FIBERGLASS WRAP. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
- OUTSIDE AIR INTAKE DUCTWORK TO BE SINGLE WALL LOW PRESSURE RECTANGULAR, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS A, EXTERNALLY INSULATED WITH 2" THICK FIBERGLASS WRAP. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
- EXHAUST AIR DUCTWORK TO BE LOW PRESSURE SINGLE WALL RECTANGULAR, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS A.
- TRANSFER DUCTS TO BE INTERNALLY INSULATED WITH 1" THICK ACOUSTICAL DUCT LINER. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.

AMBIENT DESIGN CONDITIONS

SEASON	OUTSIDE TEMPERATURE
SUMMER	96°F DB/76°F WB
WINTER	21°F DB

DESIGN CONDITIONS

UNIT	SUMMER SPACE TEMP./HUMIDITY	WINTER SPACE TEMP./HUMIDITY
AHU-13	75°F DB/50% RH	72°F DB/50% RH
FCU'S	75°F DB/50% RH	72°F DB/50% RH
UNIT HEATERS	N/A	40°F DB/--
VENTILATION FANS	85°F DB/--	N/A

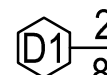




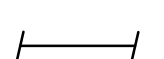
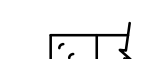
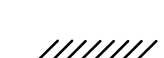
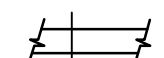
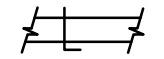








NOTES:

- INSIDE SUMMER RELATIVE HUMIDITY IS +/- 10%.
- INSIDE WINTER DESIGN TEMPERATURE IS +/- 2 DEG F.
- INSIDE SUMMER DESIGN TEMPERATURE IS +/- 2 DEG F.

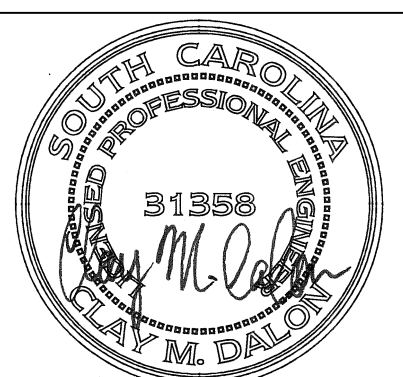
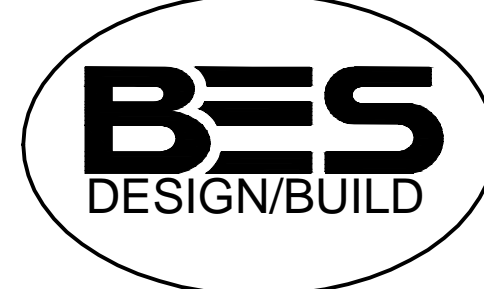
DEDUCTIVE ALTERNATES

- DEDUCT ALL MECHANICAL WORK IN EAST WING.

MECHANICAL LEGEND

	250 8X8	DIFFUSER DESIGNATION (TYPE, CFM, NECK SIZE)
	1	THERMOSTAT, "1" INDICATES DEVICE CONTROLLED
		DIFFUSER, DIRECTION OF FLOW AS INDICATED
		RETURN AIR OUTLET
		EXHAUST AIR OUTLET
		DOOR UNDERCUT (1")
	20x8	DUCT SIZE, FIRST NO. IS SIDE SHOWN
		ELBOW
		INDICATES ITEMS TO BE DEMOLISHED
	FD	FIRE DAMPER WITH ACCESS
		MANUAL VOLUME DAMPER
	DM	MOTORIZED DAMPER
CV-X		CONSTANT VOLUME UNIT DESIGNATION
FCU-X		FAN COIL UNIT DESIGNATION
VAV-X		VARIABLE AIR VOLUME UNIT DESIGNATION
ATU-X		AIR TERMINAL UNIT DESIGNATION
		P.O.D. POINT OF DISCONNECTION
		P.O.C. POINT OF CONNECTION
AFS		AIR FLOW MEASURING STATION
AI		ANALOG INPUT
AO		ANALOG OUTPUT
DI		DIGITAL INPUT
DO		DIGITAL OUTPUT
DPS		DIFFERENTIAL PRESSURE SENSOR
DS		AIR TEMPERATURE SENSOR
EXH AIR		EXHAUST AIR
(E)		EXISTING
FZ		FREEZE STAT
HPS		HIGH PRESSURE STEAM
HPR		HIGH PRESSURE STEAM CONDENSATE RETURN
LPS		LOW PRESSURE STEAM
LPR		LOW PRESSURE STEAM CONDENSATE RETURN
MPS		MEDIUM PRESSURE STEAM
MPR		MEDIUM PRESSURE STEAM CONDENSATE RETURN
N.C.		NORMALLY CLOSED
N.O.		NORMALLY OPEN
OA		OUTSIDE AIR
RA		RETURN AIR
RH		RELATIVE HUMIDITY
SA		SUPPLY AIR
HWS		HOT WATER SUPPLY
HWR		HOT WATER RETURN
CHWS		CHILLED WATER SUPPLY
CHWR		CHILLED WATER RETURN
		CONDENSATE
LPS		LOW PRESSURE STEAM (15 PSIG & BELOW)
LPR		LOW PRESSURE CONDENSATE RETURN
MPS		MEDIUM PRESSURE STEAM (16 PSIG THRU 59 PSIG)
MPR		MEDIUM PRESSURE CONDENSATE RETURN
HPS		HIGH PRESSURE STEAM (60 PSIG & ABOVE)
HPR		HIGH PRESSURE CONDENSATE RETURN
		BALL VALVE
		SMOKE DETECTOR
	1	ROOM PRESSURE MONITOR, "1" INDICATES DEVICE CONTROLLED

CONSTRUCTION DOCUMENT SUBMISSION FULLY SPRINKLERED

		CONSULTANTS:				ARCHITECT/ENGINEERS:		 BES DESIGN/BUILD, LLC 766 Middle St, Fairhope, AL 36532 Phone: 251990.5778 Fax: 251990.3716		Drawing Title MECHANICAL NOTES, SYMBOLS, AND ABBREVIATIONS		Project Title RENOVATE MEDICAL SURGICAL UNIT		Project Number 544-13-102		OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT			
										Approved: Project Director		Location W.J. BRYAN DORN VAMC; COLUMBIA, SC		Building Number 100		Department of Veterans Affairs			
												Date 05-16-2014		Checked CD		Drawing Number MH001		Dwg. 44 of 78	
1		ADDENDUM #1		6/4/2014															
Revisions:				Date															